

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization  
International Bureau(43) International Publication Date  
31 July 2003 (31.07.2003)

PCT

(10) International Publication Number  
**WO 03/061714 A3**(51) International Patent Classification<sup>7</sup>: C02F 1/461, A62D 3/00, D25F 5/00

(21) International Application Number: PCT/US03/02151

(22) International Filing Date: 24 January 2003 (24.01.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data: 60/350,352 24 January 2002 (24.01.2002) US

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(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

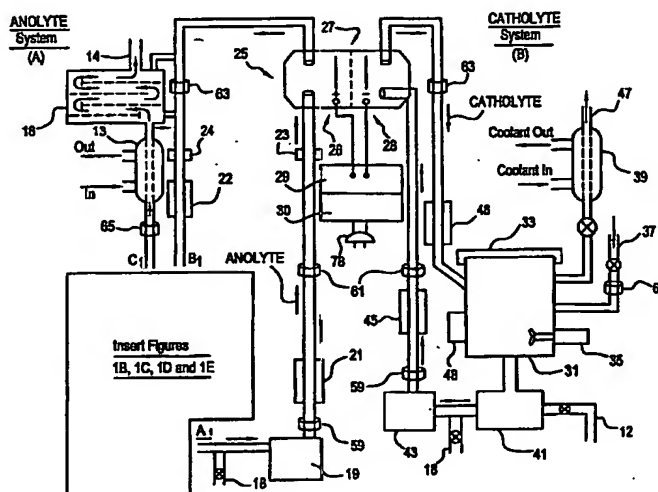
Published:

— with international search report

(88) Date of publication of the international search report:  
13 November 2003

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: MEDIATED ELECTROCHEMICAL OXIDATION OF DESTRUCTION OF SHARPS



(57) Abstract: Sharps are introduced into an apparatus for contacting the sharps with the electrolyte containing the oxidized form of one or more reversible redox couples, at least one of which is produced electrochemically by anodic oxidation at the anode (26) of an electrochemical cell (25). A definition of sharps is "objects or devices having acute rigid corners, edges points or protuberances capable of cutting or penetrating the skin". The oxidized forms of any other redox couples present are produced either by similar anodic oxidation or reaction with the oxidized form of other redox couples present and capable of affecting the required redox reaction. The oxidized species of the redox couples oxidize sharps and the biological waste on the sharps and are themselves converted to their reduced form, whereupon they are reoxidized. The oxidation process will be enhanced by the addition of ultrasonic energy and/or ultraviolet radiation.

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : C02F 1/461; A62D 3/00; D25F 5/00

US CL : 205/688, 701, 703, 746, 749; 588/204; 204/259, 262, 263, 266

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 205/688, 701, 703, 746, 749; 588/204; 204/259, 262, 263, 266

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
NONE

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

NONE

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X,P	US 6,402,932 B1 (BREMER et al) 11 June 2002, see claims 1-70.	1-93
Y	4,752,364 A (DHOOGHE) 21 June 1988, see claims 1-22.	1-93
Y	5,952,542 A (STEELE) 14 September 14, 1999, see claims 1-14.	1-93
Y	5,911,868 A (BALAZS et al) 15 June 1999, see claims 1-5.	1-93

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Further documents are listed in the continuation of Box C.

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See patent family annex.

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
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Date of the actual completion of the international search

22 JUNE 2003

Date of mailing of the international search report

07 JUL 2003

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